



Section D

Spent Nuclear Fuel

PROJECT MANAGERS

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SUMMARY

The Spent Nuclear Fuel (SNF) mission consists of the Spent Nuclear Fuel Project WBS 1.3.1.1 (Project Baseline Summary [PBS] WM01) and the subsequent Canister Storage Building (CSB) Operations Project WBS 1.3.2.1 (PBS WM02), which does not start until FY 2004.

NOTE: Unless otherwise noted, the Safety, Conduct of Operations, Milestone Achievement, and Cost/Schedule data contained herein is as of August 31, 2000. All other information is as of September 21, 2000.

A total of 38 Multi-Canister Overpacks (MCOs) were delivered to Hanford ahead of schedule. A shipment of twelve more MCOs are expected the end of October. Fabrication of the MCO baskets continues at shop 328 on the Hanford Site.

Fiscal year-to-date milestone performance (EA, DOE-HQ, and RL) shows that three out of four milestones (75 percent) were completed on or ahead of schedule and one RL milestone was completed late.

The Milestone Achievement details, found following the cost and schedule variance analysis, provide further information on all milestone types.

ACCOMPLISHMENTS

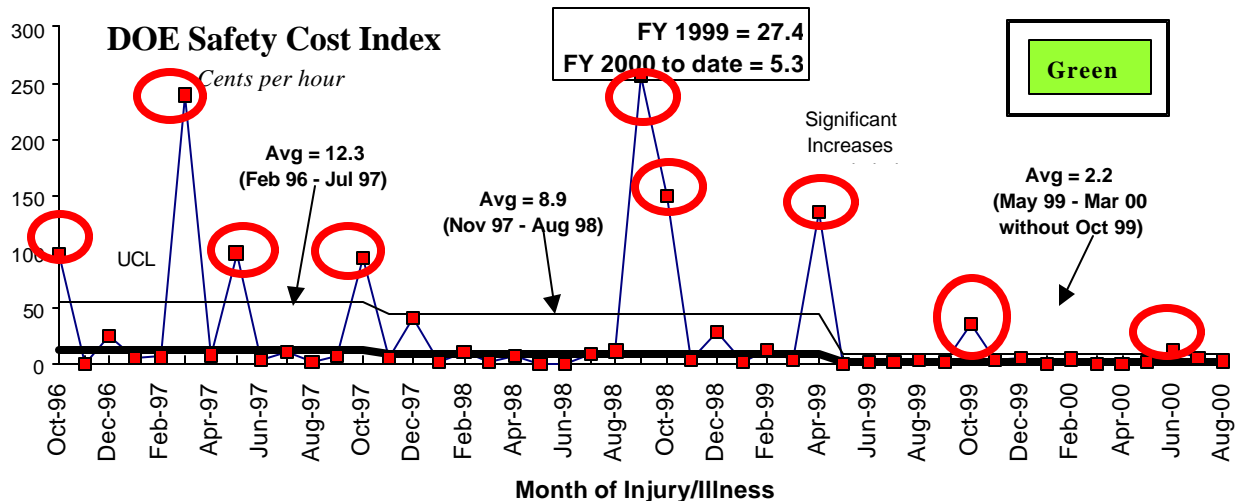
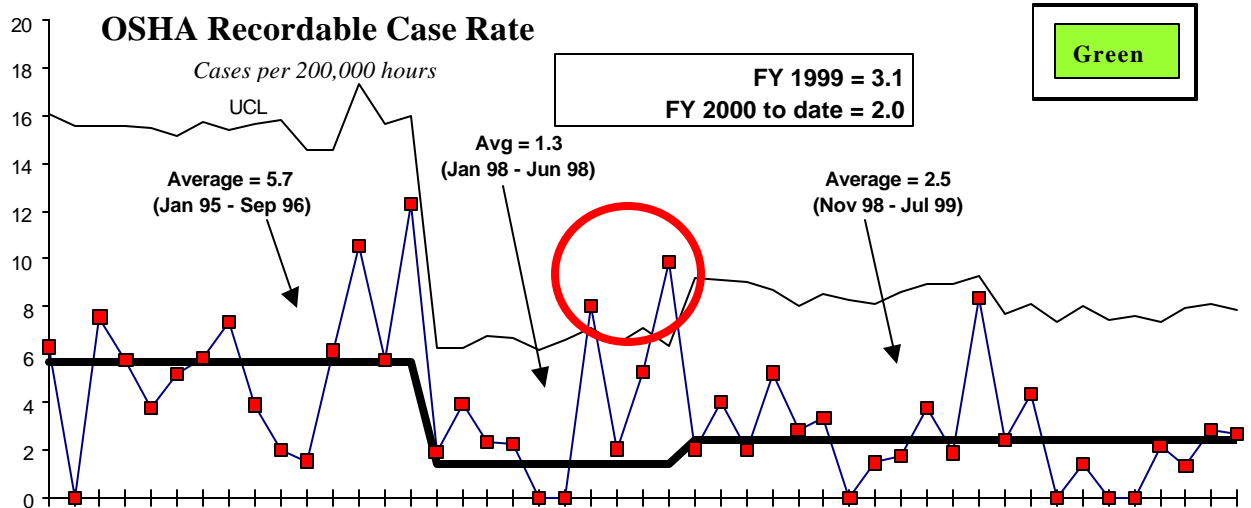
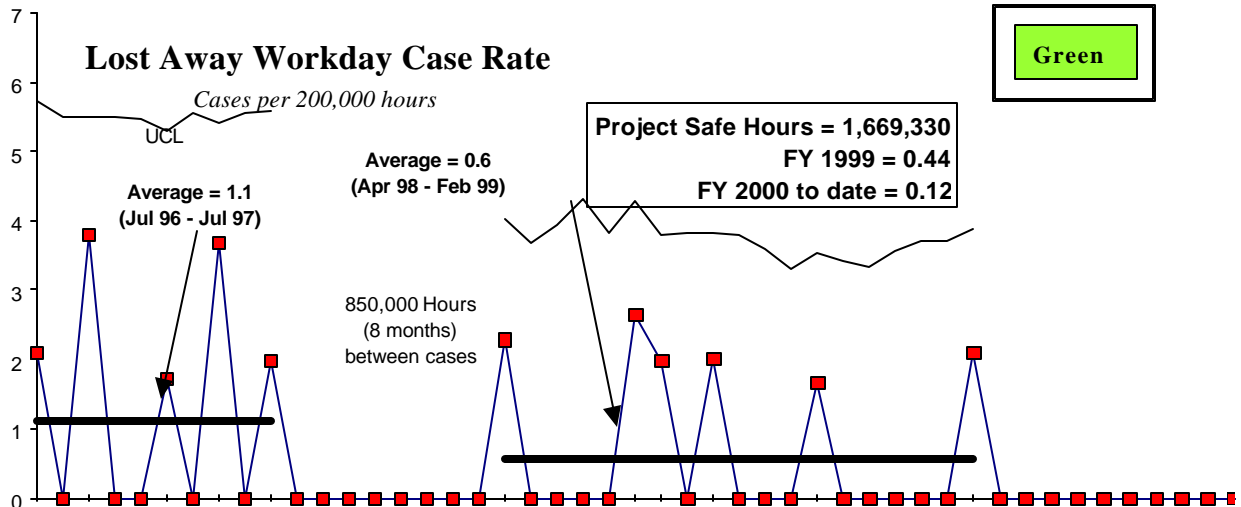
- A total of 38 MCOs were delivered to Hanford ahead of schedule. Delivery of twelve more MCOs is expected by the end of October.
- Training and procedure validation is underway for the MCO handling machine at the CSB. Installation of lower impact absorbers continues at CSB with 168 of 220 installed.
- The Readiness Assessment was concluded. Two pre-start findings and 3 post-start findings were identified. Contractor Operations Readiness Review (ORR) preparations are underway. Significant progress has been made on closure of open items in preparation for the ORR. DOE ORR Team Lead is on site and working with SNF Project personnel in anticipation of the ORR start.
- The Cask Loadout System (CLS) Testing was completed September 7, 2000.

SAFETY

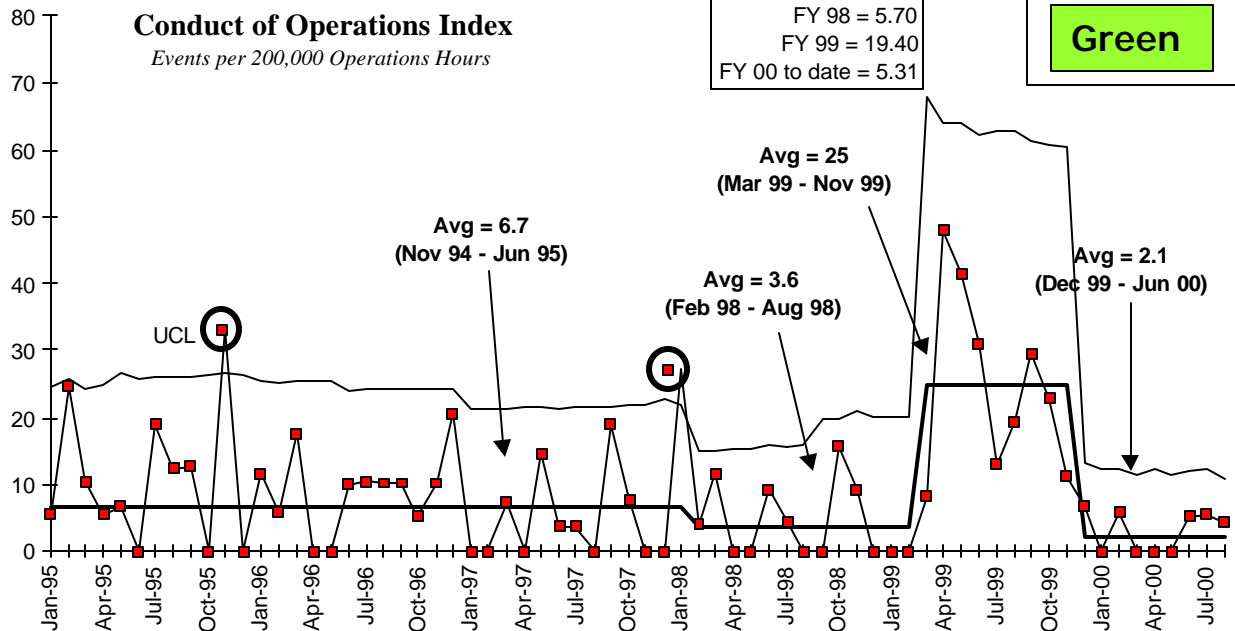
The project has achieved over 1,548,563 safe work hours. Fourteen of the last fifteen months the DOE Cost Index and Severity Rate has been below average. Although the SNF Project experienced some safety performance degradations with the start of FY 2000, performance continues to improve. October 1999 had two Restricted Workday Cases, and one Lost Away Workday Case. This was a

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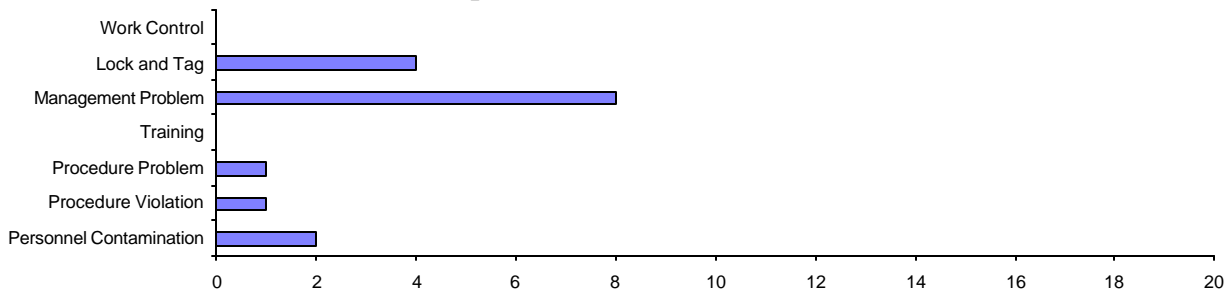
nearly significant increase (close to but not above the UCL) on the Occupational Safety and Health Act (OSHA) Recordable Case Rate. The project's safety record is improving in both OSHA recordables and DOE Cost Index. Two OSHA cases in July raised the trend above the average. Lostaway overall has had only one case in the past year.



CONDUCT OF OPERATIONS / ISMS STATUS



Number of Reports Past 12 Months



ISMS STATUS

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- The ISMS Phase I/II verification for the SNF Project was completed on November 19, 1999.
- The Corrective Action Plans for the “Opportunities for Improvement” were developed and transmitted to RL on January 10, 2000.
- The actions required to enable ISMS implementation to be declared March 31, 2000 are now complete. Documentation packages were transmitted to the Environmental, Safety and Health organization. Three of the four packages were reviewed as part of the Project Hanford Management Contract (PHMC) Phase I verification. These items are now complete. The one remaining item needing RL verification (dealing with Chemical Management Implementation) was reviewed by RL on August 11, 2000. On September 7, 2000, FHI received a letter from Keith Klein, DOE-RL, indicating all corrective action packages were sufficient and considered closed. The letter stated, "FHI can now consider the ISMS verification successfully completed."

BREAKTHROUGHS / OPPORTUNITIES FOR IMPROVEMENT

Breakthroughs

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Baseline Change Request SNF-2000-009, which documents acceleration of the completion of sludge removal by one year from August 2005 to August 2004 and reduction in total project life cycle cost by \$16 million, was implemented.

Opportunities for Improvement

Operational Readiness Review (ORR) Sequence – In collaboration with DOE, FH has developed a sequenced ORR process. The initial contractor ORR commences September 25 covering KW Basin, CSB and MCO Transportation. The second contractor ORR kickoff is October 2 at CVD. In parallel, the DOE ORR starts at KW, CSB and MCO Transportation October 9, with the follow-on inspection of the CVD commencing October 19. This schedule is extremely aggressive, but has the potential of shipping the first MCO to the CVD Facility on November 10. This process allows fuel retrieval operations to be authorized and underway in the Basins without waiting for a full process startup authorization.

UPCOMING ACTIVITIES

Cold Vacuum Drying (CVD) Facility Testing — Completion of CVD Startup Testing is scheduled for September 28, 2000.

Phased Startup Initiative (PSI) — Phase III Readiness Assessment will be completed approximately October 6, 2000.

Fuel Removal Activities — Begin DOE Operations Readiness Review by early October 2000. Begin K West Basin fuel removal, drying and storage operations by November 30, 2000.

K West Basin Canister Cleaning – Start KW Basin canister cleaning December 2000.

KE Basin Sludge Loadout – Complete KE Basin Sludge Loadout conceptual design in January 2001.

KE Basin Integrated Water Treatment System (IWTS) – Complete IWTS definitive design in April 2001.

Annual Debris Report – Submit Annual Debris Report to Department of Ecology/EPA in May 2001.

COST PERFORMANCE (\$M):

	BCWP	ACWP	VARIANCE
Spent Nuclear Fuel	\$182.0	\$184.9	- \$2.9

The unfavorable cost variance of \$2.9 million (two percent) is primarily due to Hanford Site assessments higher than baseline and additional facility start up and engineering required as a result of first-of-a-kind equipment issues at K Basins and the CVD Facility.

SCHEDULE PERFORMANCE (\$M):

	BCWP	BCWS	VARIANCE
Spent Nuclear Fuel	\$182.0	\$185.1	- \$3.1

The unfavorable schedule variance of \$3.1 million (two percent) is primarily a result of the Hanford range fire causing various subprojects to fall slightly behind schedule. In addition, the KW canister cleaning workscope has been placed on hold pending a path forward decision, and the procurements of the CSB impact limiters and some MCO plugs have been postponed until FY01.

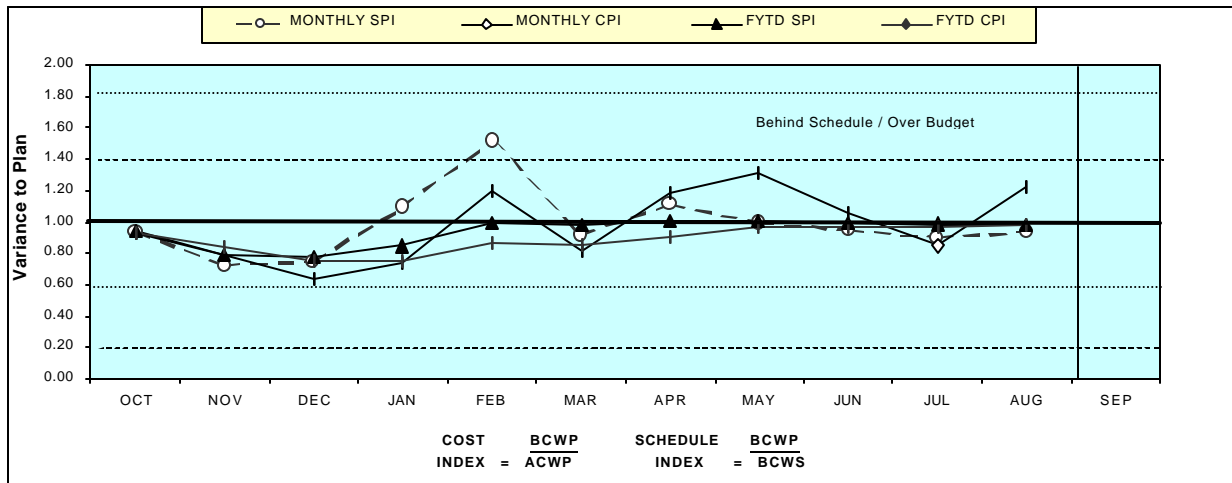
FY 2000 COST/SCHEDULE PERFORMANCE – ALL FUND TYPES CUMULATIVE TO DATE STATUS – (\$000)

		FYTD									
By PBS		BCWS	BCWP	ACWP	SV	%	CV	%	PEM	EAC	
PBS WM01	Spent Nuclear	\$ 185,119	\$ 182,006	\$ 184,942	\$ (3,113)	-2%	\$ (2,936)	-2%	\$ 201,764	\$ 204,813	
WBS 1.3	Fuel Project										
Total		\$ 185,119	\$ 182,006	\$ 184,942	\$ (3,113)	-2%	\$ (2,936)	-2%	\$ 201,764	\$ 204,813	

Authorized baseline as per the Integrated Planning Accountability, and Budget System (IPABS) – Project Execution Module (PEM)

COST/SCHEDULE PERFORMANCE INDICES (MONTHLY AND FYTD)

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FY 2000	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MONTHLY SPI	0.94	0.73	0.75	1.09	1.52	0.92	1.12	0.99	0.95	0.90	0.93	
MONTHLY CPI	0.93	0.79	0.64	0.74	1.20	0.82	1.19	1.31	1.06	0.85	1.23	
FYTD SPI	0.94	0.79	0.78	0.85	0.99	0.98	1.00	1.00	1.00	0.99	0.98	
FYTD CPI	0.93	0.84	0.76	0.75	0.86	0.85	0.90	0.96	0.97	0.96	0.98	
MONTHLY BCWS	\$8,574	\$19,209	\$15,681	\$12,081	\$15,753	\$20,085	\$19,582	\$28,731	\$14,312	\$11,781	\$19,330	\$16,646
MONTHLY BCWP	\$8,049	\$13,968	\$11,770	\$13,221	\$23,909	\$18,511	\$21,838	\$28,517	\$13,561	\$10,596	\$18,066	
MONTHLY ACWP	\$8,626	\$17,581	\$18,370	\$17,831	\$19,906	\$22,611	\$18,286	\$21,703	\$12,818	\$12,521	\$14,689	
FYTD BCWS	\$8,574	\$27,783	\$43,463	\$55,544	\$71,297	\$91,382	\$110,963	\$139,694	\$154,007	\$165,788	\$185,119	\$201,765
FYTD BCWP	\$8,049	\$22,016	\$33,786	\$47,008	\$70,917	\$89,428	\$111,265	\$139,783	\$153,344	\$163,939	\$182,006	
FYTD ACWP	\$8,626	\$26,207	\$44,577	\$62,408	\$82,314	\$104,925	\$123,210	\$144,913	\$157,731	\$170,253	\$184,942	

COST VARIANCE ANALYSIS: (- \$2.9M)

WBS/PBS

Title

1.3.1/WM01

Spent Nuclear Fuel Project

Description/Cause: The unfavorable cost variance of \$2.9 million (1.6 percent) is primarily due to Hanford Site assessments higher than baseline and additional facility start up and engineering required as a result of first-of-a-kind equipment issues at K Basins and the CVD Facility.

Impact: None. Variance percentage threshold is not in jeopardy.

Corrective Action: None.

SCHEDULE VARIANCE ANALYSIS: (- \$3.1M)

WBS/PBS

Title

1.3.1/ WM01

Spent Nuclear Fuel Project

Description /Cause: The unfavorable schedule variance of \$3.1M (1.7 percent) is due to the following items: Hanford range fire caused various subprojects to fall slightly behind schedule; Canister cleaning workscope on hold pending path forward decision; and, procurements of CSB impact limiters and MCO plugs postponed until FY01.

Impact: None. Variance percentage threshold is not in jeopardy.

Corrective Action: None.

FUNDS MANAGEMENT
FUNDS VS SPENDING FORECAST (\$000)
FY TO DATE THROUGH AUGUST 2000
(FLUOR HANFORD, INC. ONLY)

	Project Completion *			Post 2006 *			Line Items/Other *		
	Expected Funds	FYSF	Variance	Expected Funds	FYSF	Variance	Expected Funds	FYSF	Variance
The River									
1.3 Spent Nuclear Fuel									
WM01 Operating Line Item	\$ 176,075	\$ 182,144	\$ (6,069)				\$ 22,669	\$ 22,669	\$ -
Total Spent Nuclear Fuel Operating	\$ 176,075	\$ 182,144	\$ (6,069)						
Total Spent Nuclear Fuel Line Item							\$ 22,669	\$ 22,669	\$ -

* Control Point

ISSUES

There are no technical, DOE, Regulator or external issues identified at this time. An internal DOE budget reprogramming of \$5.0 million was allocated in August to remedy SNF's projected FY 2000 expense funding shortage.

BASELINE CHANGE REQUESTS CURRENTLY IN PROCESS
(\$000)

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PROJECT CHANGE NUMBER	DATE ORIGIN	BCR TITLE	FY00 COST IMPACT \$000	SCH	TECH	DATE TO FH CCB	CCB APR'VD	RL APR'VD	CURRENT STATUS
SNF-2000-019	5/9/00	FRS/IWTS Phased Startup Initiative - Adding Hot Testing	2816	Y	Y	8/21/00	8/24/00		Awaiting RL CO approval.
SNF-2000-020	6/14/00	Safeguards & Security Support at KE/KW Basins and CVD Facility	415	Y	Y	8/21/00	8/28/00	N/A	Approved
SNF-2000-021	7/27/00	SNF Project FY2001 MYWP Rate Impacts		Y	Y	8/1/00	8/30/00		Awaiting RL CO approval.

ADVANCE WORK AUTHORIZATIONS									
SNF-2000-019	8/10/00	FRS/IWTS Phased Startup Initiative - Adding Hot Testing	1116	Y	Y	8/11/00	8/11/00	8/11/00	Approved 8/11/00

MILESTONE ACHIEVEMENT

M I L E S T O N E T Y P E	FISCAL YEAR-TO-DATE				REMAINING SCHEDULED			T O T A L F Y 2 0 0 0
	Completed Early	Completed On Schedule	Completed Late	Overdue	Forecast Early	Forecast On Schedule	Forecast Late	
Enforceable Agreement	1	1	0	0	0	0	0	2
DOE-HQ	0	0	0	0	0	0	0	0
RI	1	0	1	0	0	0	1	3
Total Project	2	1	1	0	0	0	1	5

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Only TPA/EA milestones and all FY2000 overdue and forecast late milestones are addressed in this report. Milestones overdue are deleted from the Milestone Exception Report once they are completed. The following chart summarizes the FY2000 TPA/EA milestone achievement and a Milestone Exception Report follows. The last milestone table summarizes the first six months of FY2001 TPA/EA milestones.

STATUS AS OF 8/31/2000

FY 2000 Tri-Party Agreement / EA Milestones		
Number	Milestone Title	Status
M-34-14A (S06-97-009)	"Complete K West Basin Cask Facility Modifications"	Due 2/29/00 — Completed on schedule.
M-34-04 (S01-99-124)	"Submit Remedial Design Report/Remedial Action Work Plan for the K Basins"	Due 3/31/00 – Completed over one month early (February 10, 2000).
M-34-05 (T01)	"Submit Report on Quantities, Character, and Management of K Basins Debris"	Due 5/31/00 – Completed on schedule.
DNFSB Commitments		
	Nothing to report.	

Milestone Exception Report

<u>Number/WBS</u>	<u>Level</u>	<u>Milestone Title</u>	<u>Baseline Date</u>	<u>Forecast Date</u>
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FORECASTED LATE – 1

S03-98-602 **RL** Contractor Operational Readiness Review 09/07/00 10/09/00
1.3.1

Cause: Unforeseen delays in construction and testing brought on from technical issues within the facilities.

Impact: None.

Corrective Action: Complete construction and testing to allow conducting the ORRs.

FY 2001 Tri-Party Agreement / EA Milestones		
Number	Milestone Title	Status
M-34-16 (S00-01-900)	"Initiate removal of K West Basin Spent Nuclear Fuel"	Due 11/30/00 - On schedule.
M-34-06-T01	"Initiate K West Basin Spent Nuclear Fuel Canister Cleaning Operations"	Due 12/31/00 - On schedule.
DNFSB Commitments		
	Nothing to report.	

PERFORMANCE OBJECTIVES

Readiness for Fuel Movement (RC-1-1.a-I) — Contractor completion of construction and operational testing, Management Self-Assessment (MSA), and Independent Operational Readiness Review (ORR) by September 14, 2000, to begin moving fuel by November 30, 2000.

Red

- Start of fuel movement is currently on track to meet November due date.

Phased Startup Initiative (PSI) (RC-1-1.a-II) — Complete PSI Phases 1 and 2 by April 15, 2000. Includes successful Cold Testing of Integrated Water Treatment System (IWTS) & Fuel Retrieval System (FRS).

Red

- This activity was completed (except for punchlist items) late.

Accelerate Fuel Movement (RC-1SS-1) — Accelerate start of fuel movement.

- Pre-positioning of fuel processed in PSI Phase III will allow early loading of Multi-Canister Overpacks (MCOs).

Yellow

Phased Startup Initiative (PSI) (RC-1SS-2) — Complete Phases 3 and 4 by August 15, 2000. Includes completion of FRS/IWTS system testing using SNF (real fuel) and Completion of Construction Documentation Phase 2 (CCD2).

Red

KEY INTEGRATION ACTIVITIES

- Spent Nuclear Fuel (SNF) final disposition interface activities, including Office of Civilian Radiation Waste Management (OCRWM) Quality Assurance (QA) Program implementation, is ongoing with the National SNF Program. The SNF Project received formal notification that the SNF Project's implementation of OCRWM QA Program was deemed "effective" by the National SNF Program.
- The SNF Project and Waste Management Project continued preparations for K Basins' sludge removal and Shippingport (PA) Pressurized Water Reactor Core 2 SNF removal.
- The Programmatic Agreement between the River Corridor Project and the SNF Project for 324 Building (B Cell) SNF removal is in the management approval cycle.
- Neutron Radiography Facility Training Research and Isotope Production General Atomics (TRIGA) and Fast Flux Test Facility (FFTF) SNF relocation planning is ongoing with FFTF Project.
- SNF Project provided input to Bechtel Hanford, Incorporated on transfer plan for SNF discovered during upcoming 105F and 105H reactor basins deactivation.